

## The NOAA FISHERIES NAVIGATOR

### Mid-Atlantic Research Set-Aside Program Under Review

n 2010, NOAA's Office of Law Enforcement (OLE) began investigating alleged Mid-Atlantic Research Set-Aside (RSA) program violations that have since led to guilty pleas by several New York fishermen and seafood dealers.

In response to these cases and to other program concerns, the Mid-Atlantic Fishery Management Council decided in August to suspend the 2015 Mid-Atlantic RSA competition in order to conduct a thorough review of the program.

In addition, NOAA Fisheries, in coordination with OLE and the Council, has implemented a number of procedures to increase oversight for all of the RSA programs in the region. These improvements are intended to help prevent similar abuses from occurring in the future and enable these cooperative research programs to continue supporting important research needs while building collaborative partnerships between fishermen and the scientific and management communities.

In 2001, the Council established the Mid-Atlantic RSA program to support high-priority Mid-Atlantic fisheries research needs. Under this program, the Council can set aside 3% of the allowable landings for summer flounder, scup, black sea bass, longfin and *Ilex* squid, Atlantic mackerel, butterfish, bluefish, and, more recently, spiny dogfish. Proceeds from the sale of RSA quota are used to support approved research projects in the region.

Managed by NOAA's Northeast Fisheries Science Center's Northeast Cooperative Research Program (NCRP) in coordination with NOAA Fisheries' Greater Atlantic Regional Fisheries Office (GARFO), grants for the RSA allocations are awarded through a competitive process.

The grants support projects involving researchers, commercial and recreational fishermen, and other stakeholders. In addition to the Mid-Atlantic RSA Program, the NCRP also manages the Atlantic scallop, monkfish, and Atlantic herring RSA programs, which were established by the New England Fishery Management Council.

Mid-Atlantic RSA projects have addressed a broad array of research topics such as improving stock assessments through resource abundance and distribution surveys, reducing bycatch through conservation engineering, and investigating fundamental life history and biology questions for Mid-Atlantic species. These projects have led to the development of new escape vents for the black sea bass pot fishery, supported stock assessments for several commercially and recreationally important species such as black sea bass and summer flounder, and contributed to other science and management efforts.

#### Harvesting, monitoring

NOAA Fisheries uses exempted fishing permits (EFPs) to facilitate the harvest of RSA quota by authorized vessels. The EFPs are used to grant participating vessels exemptions from certain regulations such as Federal possession limits or closed seasons. These exemptions provide additional fishing opportunities to participating vessels and add value to



Catch from the NEAMAP survey is sorted and weighed to help improve stock assessments for several Mid-Atlantic species

the RSA quota, which is a critical aspect of the program.

Fishing vessels conduct what is known as compensation fishing, or fishing for RSA quota, to generate the revenues needed to conduct the research project for which the RSA grant was awarded. Vessels conducting RSA compensation fishing have additional reporting requirements, which are intended to monitor the harvest of RSA quotas and inhibit the abuse of compensation fishing privileges such as exemptions from regulations.

RSA grant recipients and vessel owners/operators are provided with explicit reporting instructions, which are included on the EFP and must be signed by the project's Principal Investigators and the participating vessel owners/operators to ensure recognition of these requirements.

#### RSA reporting violations

Strong reporting compliance is critical to the viability and integrity of the RSA programs. Program managers and OLE took action when allegations surfaced in 2010 that several vessels harvesting Mid-Atlantic RSA quota were engaged in the sale of summer flounder in New York ports without reporting the fish as required.

To date, OLE has documented cases against two fishermen and three dealers for illegally concealing substantial landings of summer flounder.

Special agents spent nearly two years working to break down these illicit, highly organized schemes to land and sell fish without reporting the catch. Agents' observations of the individuals in public areas over the course of several months provided solid evidence of the illegal activity, leading to the successful prosecution of the offenders.

Charles Wertz Jr. of East Meadow and the F/V Norseman manipulated the system by purchasing set-asides for summer flounder and using his company, C&C Ocean Fishery Ltd., to file false federal dealer reports that matched what was filed from his fishing vessel. Wertz and his company pled guilty in Federal court to multiple counts of wire fraud and falsifying Federal records.

Anthony Joseph, captain of the F/V Stirs One, conspired with Alan Dresner, a federally licensed

dealer from Brooklyn, NY, in a similar scheme to underreport summer flounder. Joseph and Dresner pled guilty in Federal court to multiple counts of mail fraud, wire fraud, and falsifying Federal records.

Jones Inlet Seafood Co. Inc., a federally licensed fish dealer located in Point Lookout, NY, its company president, Michael Mihale, and the company vice-president, Bruce Larson Jr., pled guilty in federal court to multiple counts of wire fraud, falsifying Federal records, and one count

of Lacey Act false labeling. Mihale and Larson were involved in a scheme to direct unwitting subordinates to falsify and submit fisheries dealer reports. They also were making regular purchases of illegal summer flounder from Anthony Joseph.

The five defendants have agreed to pay between \$1,847,000 and \$2,061,000 in combined fines and forfeitures and will undergo sentence conditions, including: community service payments of \$45,000 to Cornell Cooperative Extension (CCE) of Suffolk County in order to pay for the enhancement of summer flounder habitat through CCE's Marine Meadows Program; relinquishment of Federal and state fishing permits; a ban on participation in the RSA program; a lifetime ban from possessing a NOAA operators' permit; and shutting down Wertz's company. Wertz also was sentenced to 366 days in Federal prison.

As of early October, Joseph, Dresner, and Jones Inlet Seafood were awaiting sentencing hearings during which the Court will decide if additional penalties should be imposed. It is estimated that at least 382,446 pounds of fluke were illegally harvested between these two fishermen with a minimum value of \$823,919. The 2013 summer flounder commercial quota for New York State was 842,605 pounds.

Violations such as these reduce the resources for community-based research that benefits the entire industry as they have contributed to the Council's decision to suspend the program to allow for its review.

"The unlawful non-reporting of this catch not only undermines the accurate management of the quota, but the introduction of these fish into commerce also affects the profitability of landing fish for those fishermen who comply with the regulations," noted Logan Gregory, Special Agent in Charge of OLE's Northeast Division.

#### Council review

After extensive discussion of the costs, benefits, enforcement concerns, and public comments, the Mid-Atlantic Fishery Management Council voted to suspend its 2015 RSA program to allow for a thorough program review

Continued on next page



## The NOAA FISHERIES NAVIGATOR

Continued from previous page

The Council's decision was partially based on concerns that the program's current design makes it vulnerable to abuse through under-reporting and non-reporting of catch, as illustrated by the recent investigations in New York, as well as questions about the process for vetting proposals and overseeing project implementation. Over the next year, the Council will conduct a comprehensive evaluation of the program to determine whether it should be resumed in 2016.

One significant project that has been supported in part through the Mid-Atlantic RSA program is the Northeast Area Monitoring and Assessment Program known as NEAMAP.

NEAMAP has been conducting spring and fall nearshore trawl surveys from Cape Cod, MA to Cape Hatteras, NC since 2008 and is managed by the Virginia Institute of Marine Science. The program provides a valuable data stream on the abundance, distribution, and life history of over 20 commercially and recreationally important Mid-Atlantic species. Beginning in 2015, these surveys will be funded

NEAMAP program no longer would need RSA quota to generate the funds necessary to conduct the survey.

Improving RSA monitoring

In response to the recent enforcement cases and requests from the Council, NOAA Fisheries has revised RSA monitoring and oversight procedures to ensure more accurate reporting of RSA quota.

by NOAA Fisheries through an ongoing grant to the

Atlantic States Marine Fisheries Commission. With

this development, the NEAMAP survey is no longer

dependent on the Mid-Atlantic RSA Program for

funding. In addition, if the Mid-Atlantic Council

other research projects, as the resource-intensive

recommends continuing the RSA program in 2016,

substantially more funding may be available to support

Changes include better auditing and matching procedures between vessel trip reports and dealer reports, development of a more explicit policy for revoking RSA compensation fishing privileges, and more advanced data sharing capabilities with OLE.

These new procedures will significantly bolster oversight of RSA compensation fishing activities

and enable more comprehensive analysis to evaluate program performance and identify areas of concern.

NOAA Fisheries will continue to examine all of the RSA programs to improve program performance and oversight, which includes working closely with the Councils, state partners, the fishing industry, and the cooperative research community.

For more information on continuing developments with the Mid-Atlantic RSA Program, please call GARFO Cooperative Research Liaison Ryan Silva at (978) 281-9326 or e-mail him at <Ryan.Silva@noaa.gov> or call Jason Didden of the Mid-Atlantic council at (302) 526-5254. Didden's e-mail address is <jdidden@mafmc.org>.

# New Port Agents for New Bedford and Cape May

ishermen out of New Bedford and Cape May might have noticed NOAA Fisheries' new port agents Bill Duffy and Josh O'Conner, who are now staffing offices that were temporarily closed due to staff retirements.

Working from the Hastings Keith Federal Building at 53 North Sixth St. in New Bedford, Bill Duffy is covering southeastern Massachusetts and Cape Cod.

Previously, Bill worked primarily on spiny dogfish, cod, haddock, and river herring issues in the Fishery Biology Program at NOAA Fisheries' Northeast Fisheries Science Center. He also worked as an observer in the Massachusetts Industry-Based Resource Survey Program and other programs out of New Bedford.



Bill's solid understanding of the local fisheries and port are a good resource for fishermen, and he welcomes your questions and comments. Call Bill at (978) 609-7747 or e-mail him at <William.Duffy@noaa.gov>.

Working out of an office at 1382 Lafayette St. in Cape May, Josh O'Connor is the new port agent for southern New Jersey and Delaware. New Jersey fishermen may recognize Josh, a former US marine, from his previous work as a port sampler in our Toms

River, NJ office.

There, Josh became familiar with commercial fishing communities around the state through his efforts to collect samples from fish landed throughout north and central New Jersey. Josh may be reached by phone at (609) 884-2113 (office) or (978) 290-9339 (cell). Or e-mail him at <Joshua.O'Connor@noaa.gov>.

Feel free to contact either Bill or Josh if you have any fisheries-related questions or comments. A full listing of NOAA Fisheries Greater Atlantic Regional Fisheries Office port agents is available online at <www.greateratlantic.fisheries.noaa.gov/sed/portagents/index.html>.

### First Round of Groundfish Fishery Disaster Relief is now Underway

OAA has awarded the first set of grants to most of the states affected by the groundfish fishery resource disaster for the purpose of providing direct financial assistance to fishermen impacted by the disaster.

State directors, working in conjunction with NOAA Fisheries, developed the preliminary eligibility requirements for distributing the funds to help these fishermen and their families.

The eligibility criteria include being a Northeast multispecies limited-access permit holder from one of the affected states who landed at least 5,000 pounds of regulated Northeast groundfish in any of the past four fishing years, beginning with fishing year 2010 (May 1, 2010–April 30, 2011) through fishing year 2013 (May 1, 2013-April 30, 2014).

The states may impose other qualifying or eligibility standards before distributing the funds and each will use the money allocated to them to directly pay qualifying permit holders homeported in their state.

The total amount that each state received was based

on the number of qualifying vessels that are homeported in each state.

This consensus plan divides the available \$32.8 million allocated by Congress in 2014 to support those affected by the groundfish disaster into thirds, with roughly \$11 million for each third as follows:

- One-third to be awarded as grants and used for direct assistance to eligible fishermen;
- One-third to be awarded to the affected states as grants to support efforts to address the unique and varied needs of each states' fishing communities; and
- One-third to be held in reserve for use to potentially develop either a buyout or buyback program for permits or vessels or both.

For details about how each state plans to distribute this first portion of the funds, please contact the states directly (see chart).

For more information, call Allison Ferreira, NOAA Fisheries' Greater Atlantic Regional Office, at 978-281-9103 or e-mail her at <Allison.Ferreira@noaa.gov>.

#### **Breakdown of First Third of Funds for Direct Assistance**

Recipient	Federal Funding	Point of Contact
Maine Department of Marine Resources	\$1,690,000	Meredith Mendelson (207) 624-6553
New Hampshire Fish and Game	\$910,000	Cheri Patterson (603) 868-1095
Massachusetts Division of Marine Fisheries	\$6,532,500	Melanie Griffin (617) 626-1528
Rhode Island Department of Environmental Management	\$1,397,500	Robert Ballou (401) 222-4700, ext. 4420
Connecticut Department of Energy and Environmental Protection	\$97,500	Mark Alexander (860) 434-6043
New York State Department of Environmental Conservation Bureau of Marine Resources with the NY State Housing Trust	\$585,000	Steve Heins (631) 444-0436

### A Free and Easy Way to Dispose of Old Gear

aunched in 2008, Fishing for Energy provides a no-cost solution to fishermen looking to dispose of old or unusable fishing gear. The program also works to reduce the amount of derelict fishing gear in and around coastal waterways.

Fishing for Energy is a partnership between Covanta, a world leader in sustainable waste management and renewable energy, the National Fish and Wildlife Foundation (NFWF), the National Oceanic and Atmospheric Administration (NOAA) Marine Debris Program, and Schnitzer Steel Industries Inc.

The partnership works closely with state and local agencies, community and fishing groups, and local ports to install bins at convenient and strategic locations so fishermen can easily dispose of gear.

Filled bins are transported to a nearby Schnitzer Steel facility where the metal, such as that found in crab pots and gear rigging, is recovered for recycling and rope and nets are sheared for easier disposal.

Gear material that can't be recycled is brought to a nearby Covanta energy-from-waste facility and converted into clean, renewable electricity for local communities.

To date, more than 2.5 million pounds (1,250 tons) of gear has been collected from bins placed in 41 communities throughout the US.

#### Acceptable gear

Here's a list of gear that fishermen may dispose of through the Fishing for Energy

program.

- Nets Nylon, polypropylene, monofilament, as dry as possible with organic debris removed.
- Fishing gear rigging Trawl dragger cookies, cans, rollers, and chain. Steel ground cables are accepted, but should be separated from other gear for disposal.
- Traps/Pots Wood and vinylcoated wire, crushed with bricks removed. And
- Line Nylon and polypropylene, as tightly coiled as possible.



If you are a fisherman near any of these permanent bin locations in the Northeast, you are encouraged to dispose of any legally owned gear according to the terms of the port or transfer station.

#### Maine

**Portland** – Portland Fish Exchange, 6 Portland Fish Pier, Net Yard, Phone: (207) 773-0017

#### Massachusetts

**Newburyport**– 22 R Water Street, Phone: (978) 360-6963

**Rockport** – Rockport Transfer Station, Blue Gate Lane and Main Street, Phone: (978)

**South Boston**– Cardinal Medeiros Port, 696 East First Street, Phone: (617) 823-2936

**Scituate**– Scituate Transfer Station, 280 Driftway, Phone: (781) 545-8729

New Bedford - Whale's Tooth Parking Lot, 532 Acushnet Avenue, Phone: (508) 989-1195

**Chatham**– Chatham Transfer Station, 97 Sam Ryder Road, Phone: (508) 945-5156

Wellfleet - Wellfleet Transfer Station, 370 Coles Neck Road, Phone: (508) 349-0335

**Provincetown** – Provincetown Transfer Station, 24 Race Point Road, Phone: (508) 487-7076



Rhode Island Narragansett – Point Judith Wastewater Pumping Station, Great Island Road, Phone: (401) 782-4587

New York Montauk – Montauk Transfer Station, 365 Montauk Highway, Phone: (631) 668-5813

#### New Jersey

**Barnegat Light** – Barnegat Light Transfer Station, 11 West 10th Street, Phone: (609) 494-6100

If these locations are not convenient and you wish to nominate a port near you, please call Michelle Pico of the National Fish and Wildlife Foundation at (262) 567-0601 or e-mail her at <pic@nfwf.org>.

More information is available online at <www.nfwf.org/fishingforenergy>.

## NOAA publishes new S-K funding opportunity

Oct. 16,

competitive funding opportunity for fiscal year 2014/2015 offered by the Saltonstall-Kennedy (S-K) Grant Program is now open. Published on

the funding opportunity will be open for 60 days and closes on Dec. 15.

The S-K program provides financial assistance in the form of grants or cooperative agreements for research and development projects to benefit the US fishing industry and communities by building and maintaining sustainable fisheries and practices.

Research priorities for 2014/2015 include: maximizing fishing opportunities and jobs; improving the cost effectiveness and capacity for observations; increasing the supply, quality, and diversification of domestic seafood; and improving the quality and quantity of fishery information from the US territories. More details about these priority areas may be found in the grant solicitation.

The Federal Funding Opportunity (FFO) describes the program priorities, eligibility requirements, instructions and format for submitting proposals, selection criteria, and more. The FFO is available online at <www.grants.gov> along with the application for download.

Please visit <www.grants.gov> and enter under funding opportunity "NOAA-NMFS-FHQ-2015-2004246" or keyword "Saltonstall-Kennedy." You also may visit the Greater Atlantic Region's S-K page at <www.greateratlantic. fisheries.noaa.gov/ob/grants/sk/index.html> for more information.

# <u>Chatham Fisherman Gets First Mussel Aquaculture</u> <u>Permit for Federal East Coast Waters</u>

n mid-August, Chatham, MA fisherman Domenic Santoro received the first mussel aquaculture permit for federal waters off the East Coast from the US Army Corps of Engineers.

Santoro will be culturing mussels using a submerged long line system on Horseshoe Shoals. He is working in partnership with Scott Lindell of the Marine Biological Laboratory in Woods Hole, who helped develop the project proposal.

Santoro, who currently fishes in the area, and Lindell actively solicited input from the fishing community before applying for the aquaculture site. Once submitted to the Army Corps, the application was highlighted in local newspapers and was put out for a 30-day public comment period by the Army Corps. Only a few comments were received, with many of them supporting the project.

The US currently imports about \$30 million worth of mussels, mostly from Canada but also from New

Zealand and other countries.

"I think this provides a great business opportunity, creating US jobs to meet consumer demand so we don't have to rely so much on imports," said Santoro.

Working with others interested in offshore mussel culture, Santoro hopes to begin operation of the farm by this spring.

This project was supported by a grant from the NOAA Fisheries Office of Aquaculture to explore the process by funding the permitting phase of a commercial aquaculture application in federal waters.

David Alves, aquaculture coordinator for NOAA Fisheries' Greater Atlantic Regional Fisheries Office (GARFO), explained that it is tough for someone to be the first to get a permit.

"This project was designed to address the 'regulatory uncertainty' inherent in permitting a new activity," Alves said. "Now there is a template for prospective applicants to follow, which gives them an idea of the timeframe

involved with getting a permit. More importantly, it lets prospective applicants know that it is possible to get one. Additionally, the agencies responsible now have experience in permitting this type of project. This will make the process go much smoother for the next applicant."

The permit process took about 15 months to complete, with the Army Corps being the lead permitting agency with extensive consultation with GARFO's Protected Resources Division.

"With all human activities, we know there are some environmental risks, but when properly located and operated responsibly, aquaculture projects like this have benefits to the marine ecosystem and society," said GARFO Regional Administrator John Bullard. "For instance, they provide locally produced seafood and jobs and help to improve water quality."

Currently, there are other commercial mussel farms in the state waters of Maine, New Hampshire, Massachusetts, and Rhode Island. Almost all of them are operated by commercial fishermen.

For more information about any of these projects, call David Alves at (978) 281-9210 or e-mail him at <David. Alves@noaa.gov>.



## The NOAA FISHERIES NAVIGATOR

# New For River Herring/Shad: Catch Caps in the Atlantic Mackerel, Herring Fisheries

nce abundant along the East Coast, populations of river herring (alewife and blueback) and shad (American and hickory) have declined compared to historical levels due to various factors ranging from habitat loss to fishing mortality.

Governmental agencies, non-profit organizations, tribal groups, academia, industry, and others are currently engaged in numerous efforts to further river herring and shad conservation.

Here is an update on one of these efforts, a fishery management initiative to help minimize the catch of river herring and shad caught in commercial fishing operations.

Vessels fishing for Atlantic mackerel and Atlantic herring can encounter river herring and shad. In response to growing concerns about the impact these fisheries may be having on river herring and shad populations, both the Mid-Atlantic and New England Fishery Management Councils recommended river herring and shad catch caps for these fisheries beginning in 2014.

A river herring and shad catch cap is a limit on the amount of river herring and shad that can be caught in a given fishery. Managers currently do not have enough data to determine biologically based catch caps for river herring and shad or to evaluate the effect of catch caps on their populations.

As a result, the catch caps recommended by the Councils are based on historical catch. The intent is to help minimize the river herring and shad that are caught incidentally in the Atlantic mackerel and herring fisheries while allowing for the full harvest of mackerel and herring quotas.

In April, NOAA Fisheries implemented a river herring and shad catch cap for the mackerel fishery. River herring and shad caught on trips landing 20,000 pounds or more of mackerel now count against the cap. If the mackerel fishery harvests 95% of its river herring and shad cap, NOAA Fisheries will implement a 20,000-pound mackerel possession limit, effectively closing the directed mackerel fishery.

In June, NOAA Fisheries requested public comment on proposed river herring and shad catch caps for the herring fishery. River herring and shad caught on trips landing 6,600 pounds or more of Atlantic herring would count against catch caps for

specific gear types – midwater and bottom trawls – and areas: Gulf of Maine, Cape Cod, and Southern New England.

If the herring fishery harvested 95% of a river herring and shad catch cap, NOAA Fisheries would implement a 2,000-pound herring possession limit for that gear and area. If approved by NOAA Fisheries, river herring and shad catch caps for the herring fishery will go into effect in late 2014.

By using this management approach, the Councils

and NOAA Fisheries hope not only to improve our understanding of river herring and shad catch in the Atlantic mackerel and herring fisheries, but also to promote cooperative efforts with the fishing industry to avoid these ecologically important species.

To learn more about river herring and shad catch caps, please visit the NOAA Fisheries Greater Atlantic Regional Fisheries Office's Fisheries Analysis and Program Support Division website at <www.nero.noaa.gov/aps/monitoring/riverherringshad.html>.

### S-K Grant Program Update: 21 Northeast Projects selected for FY '13 funding

he Greater Atlantic Regional Fisheries Office received 121 proposals for funding under the fiscal year 2013 Saltonstall-Kennedy (SK) grant program – just under half of the 250 proposals received from all over the United States. Of the 40 projects selected nationally, 21 projects, requesting approximately \$5.6 million in federal funding, were from the Greater Atlantic Region. These 21 projects represent 52% of the projects selected nationally and 54% of the \$10.5 million in funds available nationwide.

APPLICANT	PROJECT TITLE	
Downeast Institute for Applied Marine Research & Education	Demonstrating Shellfish Aquaculture Technology in Pilot and Commercial Scale Projects: Creating New Opportunities for Maine's Coastal Communities	
University of Maryland Center for Environmental Science	Otolith stable isotopes: A natural marker of contingent structure for Northwest Atlantic mackerel	\$175,940
University of New Hampshire	A Multi-Trophic, All-Season Aquaculture Raft	\$249,762
Marine Biological Laboratory	Developing whale and turtle-friendly subtidal aquaculture gear	\$125,638
Gulf of Maine Research Institute	Ecological diversity of Atlantic cod in the Gulf of Maine and its role in resiliency of a fishery	\$332,741
Virginia Institute of Marine Science	Laboratory studies on the effect of temperature on epizootic shell disease in the American lobster, Homarus americanus	\$279,492
Virginia Institute of Marine Science	Testing Raised Foot Lines in Virginia Striped Bass Fishery: A Gear Based Method of Reducing Sturgeon Interactions in Anchored Gillnet	\$138,632
The Nature Conservancy	Ecosystem Studies of Atlantic cod spawning aggregations in relation to fisheries interactions using novel active and passive acoustic approaches	\$400,000
Delaware State University	Conservation engineering within the Monkfish Gillnet Fishery: Reducing Negative fishery interaction through gear modification and assessing post release mortality and behavior of Atlantic Sturgeon	\$316,325
Virginia Institute of Marine Science	Genetic Tagging of Bluefin Tuna: Marker Optimization and Preliminary Assessment	\$107,924
Northeastern University	Assessing social impacts in groundfish fishing communities	\$236,785
University of Maine	The effects of regional temperature cycles on the development and disease susceptibility of the American lobster	\$249,516
University of New England	Optimum Utilization of Spiny Dogfish, Squalus acanthias, through Industry Partnerships and Product Development and Marketing	\$245,246
University of Connecticut	Harmful Algal Blooms: A Compendium Desk Reference	\$217,865
University of Maine	Improving survivability of cusk and Atlantic cod bycatch discarded in the Gulf of Maine lobster trap fishery	\$229,326
Smithsonian Institution	Nursery Habitat Contributions to the Chesapeake Blue Crab Spawning Stock	\$323,341
Rutgers the State University of New Jersey	Collecting Fishery Dependent Data on the Developing Offshore Whelk fishery in the Mid-Atlantic Bight and Using HabCam to Estimate Relative Abundance	\$262,940
Cape Ann Seafood Exchange, Inc.	Sustaining Redfish	\$391,670
University of Rhode Island	Island  Bioconversion of Squid and Scallop Processing Byproducts into Specialty Aquaculture Feed Ingredients Employing Energy Efficient Hydrolysis and Low-Cost Drying Processes	
Gulf of Maine Research Institute	Continuation of the Maine inshore acoustic herring survey: Collaborative research to support the Maine lobster industry	
Marine Biological Laboratory	Expanding Opportunities for Blue and Gold Mussel Farming in New England from Hatchery to Grow-out	\$373,088